Site Master Planning
for
Public Safety Training Academy
&
Multi-Agency Service Park

Community Workshop and Presentation
August 25, 2010
6:00 PM at Park and Planning Training Room, Crabbs Branch Way

Agenda:

1—Plan Update
2—Landscape Plan
3—Grading
4—Acoustics
5—LEED

Webb Tract Site Master Planning
Master Schedule
4/30/2010

Phase	Meeting	Date	Goals
1- POR validation	Kick off – POR validation	5/6/2010	Review of POR, site characteristics and community parameters
	User agencies review	5/25/2010	
	Community design workshop	6/2/2010	
2-Site Concept Development	Technical internal consultants meeting with PMs	6/24/2010	Development of site concept layouts including building locations, site circulation, sustainability issues, civil requirements. A single layout concept will be approved.
	User agencies review	7/1//2010	
	Community presentation & design workshop	7/7/2010	
3-Draft- Site Master Plan	Technical internal consultants meeting with PMs	8/12/2010	Refinement of the chosen layout. More attention to details. A detailed site layout will be approved. Design guideline draft will be generated and discussed.
	User agencies review	8/19/2010	
	Community presentation & design workshop	8/25/2010	
4- Final Site Master Plan	Technical internal consultants meeting with PMs	9/16/2010	The site layout will be finalized for Mandatory Referral. Design guideline for the further development of the site will be finalized and approved.
	Technical internal consultants meeting with PMs	9/30/2010	
	User agencies review	10/7/2010	
	Community presentation and input	10/13/2010	
5- Final Production	Delivery of the final package	11/3/2010	Consultant will produce the final Site Master Plan package.

Note: the above schedule is tentative and may be updated during the design process.


MONTGOMERY COUNTY POLICE
K-9
Montgomery County
POLICE
SPECIAL OPERATIONS DIVISION
CANINE TRAINING

PSTA Canine Training Requirements

- OBEDIENCE TRAINING 10,000 SF
- AGILITY 14,000 SF
- EVIDENCE SEARCH 10,000 SF
- SUSPECT SEARCH 16,800 SF
- APPREHENSION 30,000 SF

GATHERING AND PREPARATION FOR A TRAINING EXERCISE

- •MULTIPLE JURISDICTIONS TRAIN TOGETHER
- •OFFICERS PARK ADJACENT TO THE TRAINING FIELDS
- •CANINES REMAIN IN THE VEHICLES UNTIL THEY ARE INVOLVED IN AN EXERCISE DUE TO NO KENNELS
- •SHADE IS REQUIRED FOR THE VEHICLES WHICH REMAIN RUNNING WHILE THE CANINES ARE INSIDE, IN HOT WEATHER
- •A PLACE FOR GROUP DISCUSSIONS IS REQUIRED
- •A WATER SOURCE FOR THE ANIMALS IS REQIRED
- •A REST ROOM FOR THE OFFICERS IS REQUIRED

PREPARING FOR AN EXERCISE

Head Canine Trainer Mary Davis discusses an apprehension and recall drill with Canine Handler Corporal Chris Fumagalli and K9 Brix

AGILITY TRAINING

- EQUIPMENT SET UP IS LINEAR
- LAYOUT BASED ON MOVING FROM ONE EXERCISE TO THE NEXT
- LADDERS
- RAMPS
- JUMPING
- TUBES

AGILITY TRAINING

CANINE ON THE LADDER

CANINE COMPLETING THE EXERCISE AND RECEIVING A REWARD

APPREHENSION AND RECALL

- FLAGS PLACED AT STARTING LINE, 15, 20, 40 AND 50 YARDS
- MINIMUM FIELD LENGTH SHOULD BE 100 YDS
- VOLUNTEER IS IN THE BITE SUIT AT 40 YARDS
- VOLUNTEER IS AT THE 15 YARD LINE TO SIGNAL THE CANINE PASSING THAT DISTANCE
- THE APPREHENSION IS MADE, RECALLED, OR FALSE START
- A MEASURED LEAD IS ON THE DOG TO DETERMINE STOPPING POINT

STARTING LINE SET UP

COMMAND TO APPREHEND

APPREHENSION

Aggression Training Cont
Handler Protection Exercise

- Decoy helper assaults K9 handler.
- K9 hanlder utilizes door popper and commands K9 to apprehend decoy.

RECALL EXERCISE

RECALL MADE

SUSPECT SEARCH EXERCISE

- SEARCH FIELD INCLUDES 6 BOXES, HINGED FRONT AND TOP
- DECOY/HELPER HIDES IN ONE OF THE SIX BOXES.
- K9 COMMNADED TO LOCATE SUSPECT.

Suspect Search Continued

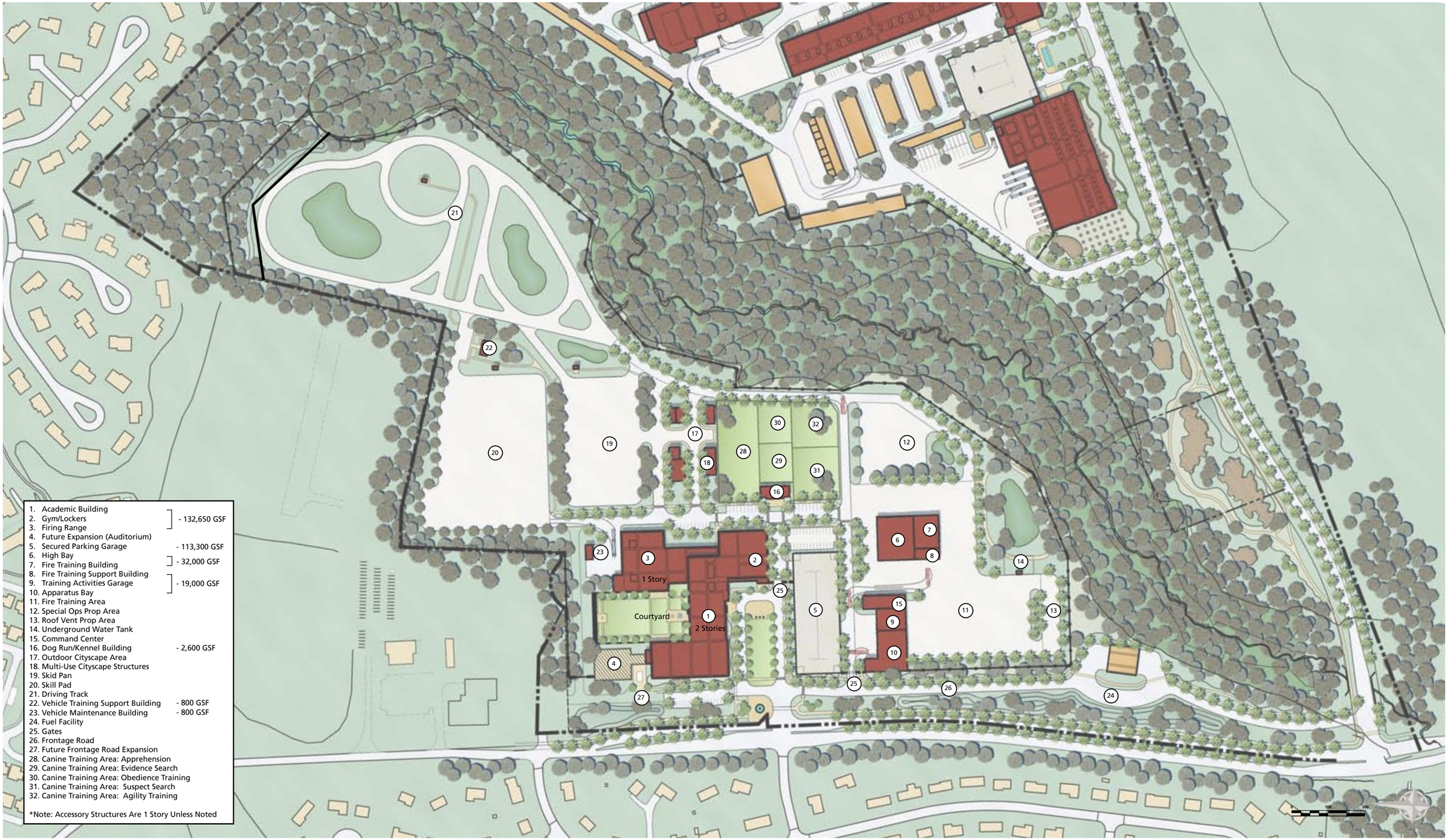
K9 giving alert that suspect is hiding in the box.

August 25, 2010

Overall Site Plan - Preliminary Design - Subject to Change

August 25, 2010

East Side Site Plan - Preliminary Design - Subject to Change

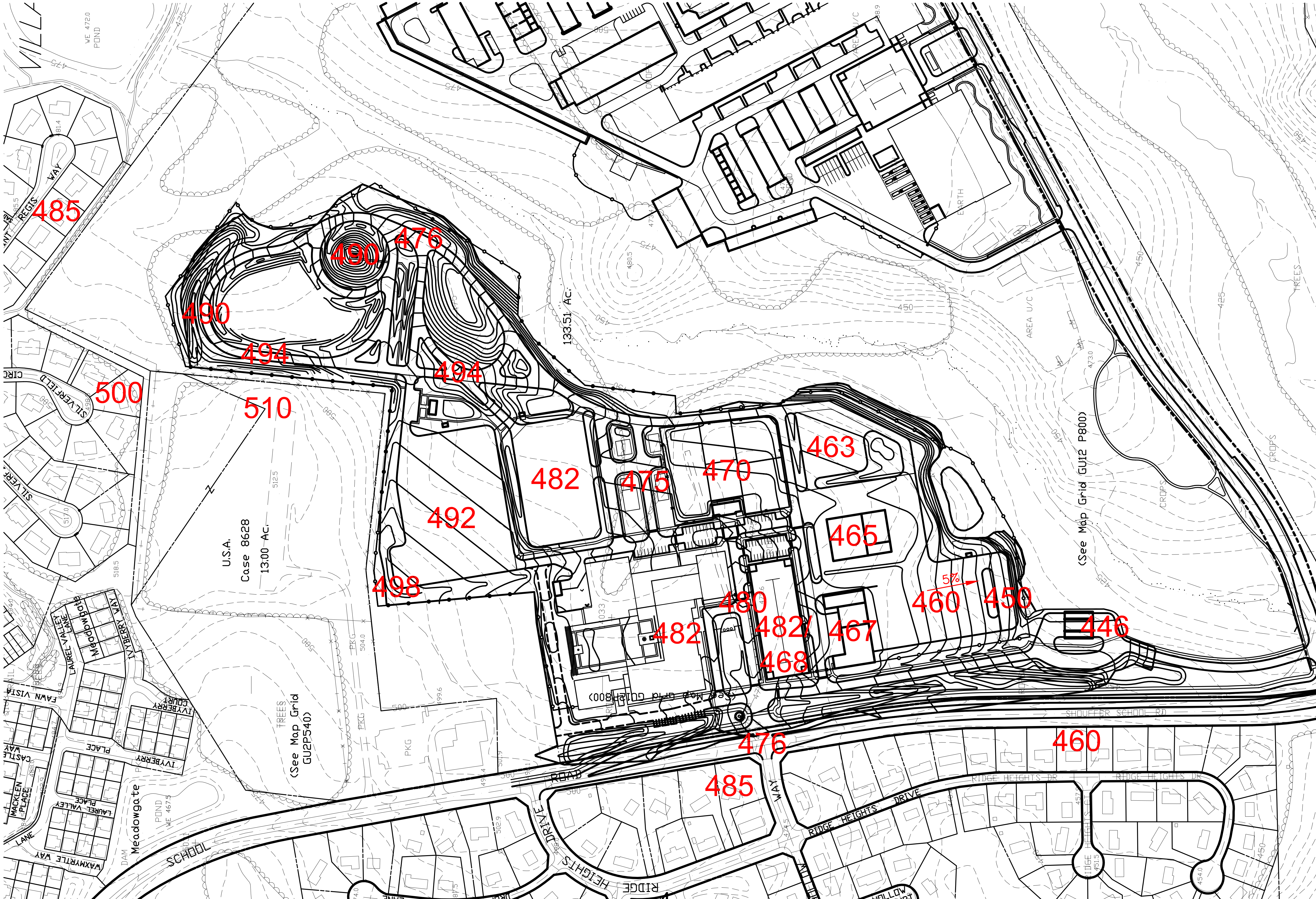


1. Academic Building
2. Gym/Lockers - 132,650 GSF
3. Firing Range
4. Future Expansion (Auditorium)
5. Secured Parking Garage - 113,300 GSF
6. High Bay - 32,000 GSF
7. Fire Training Building
8. Fire Training Support Building
9. Training Activities Garage - 19,000 GSF
10. Apparatus Bay
11. Fire Training Area
12. Special Ops Prop Area
13. Roof Vent Prop Area
14. Underground Water Tank
15. Command Center
16. Dog Run/Kennel Building - 2,600 GSF
17. Outdoor Cityscape Area
18. Multi-Use Cityscape Structures
19. Skid Pan
20. Skill Pad
21. Driving Track
22. Vehicle Training Support Building - 800 GSF
23. Vehicle Maintenance Building - 800 GSF
24. Fuel Facility
25. Gates
26. Frontage Road
27. Future Frontage Road Expansion
28. Canine Training Area: Apprehension
29. Canine Training Area: Evidence Search
30. Canine Training Area: Obedience Training
31. Canine Training Area: Suspect Search
32. Canine Training Area: Agility Training

*Note: Accessory Structures Are 1 Story Unless Noted

August 25, 2010

West Side Site Plan - Preliminary Design - Subject to Change


485
476
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494
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470
463
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465
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5%
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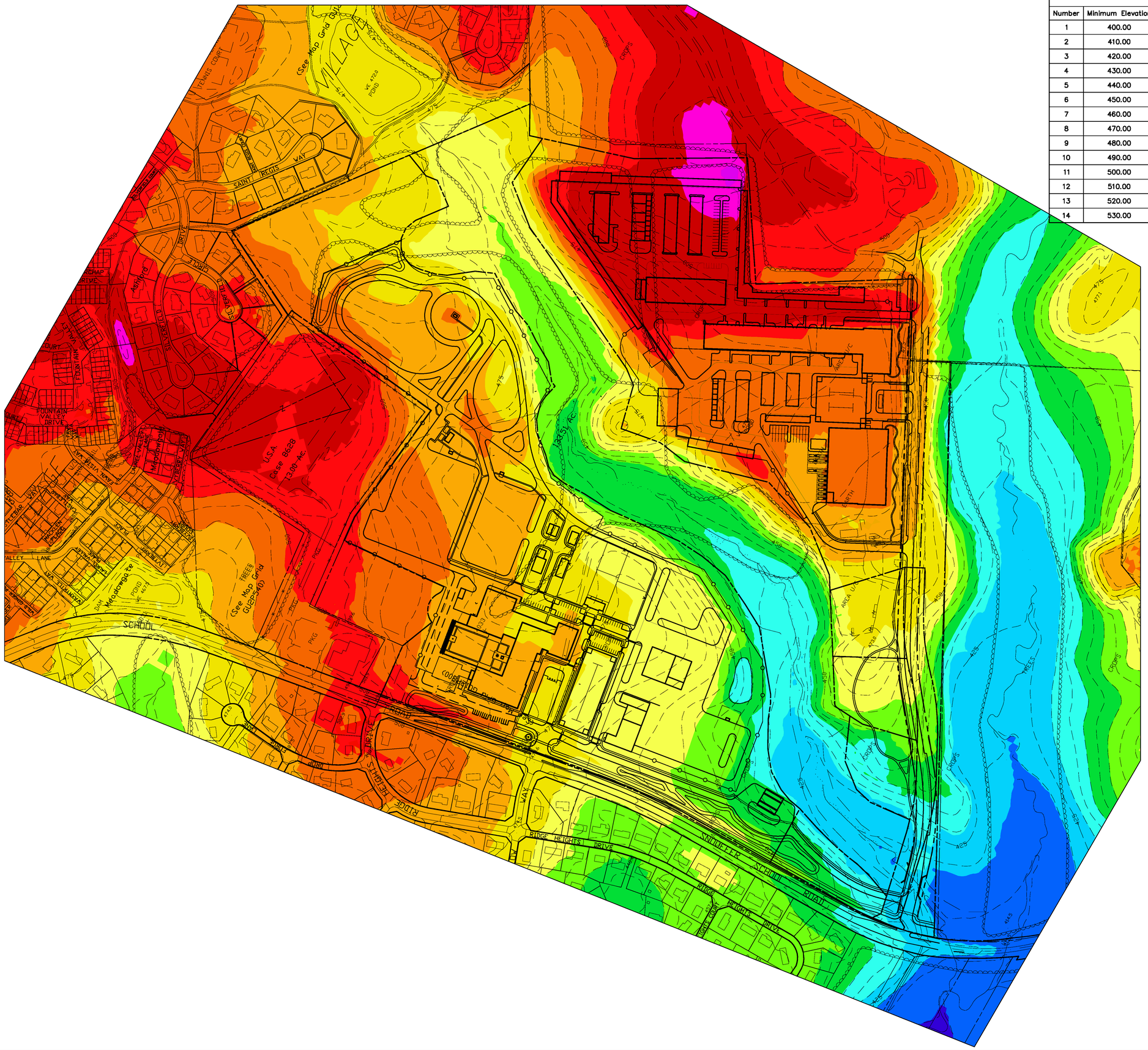
482/
468
467
446
476
460
485
133.51 Ac.
U.S.A.
Case 8628
13.00 Ac.
(See Map Grid GU12 P800)
(See Map Grid GU2P540)
(See Map Grid GU12P800)
SHOUFFER SCHOOL RD
RIDGE HEIGHTS DRIVE
RIDGE HEIGHTS DR
SCHOOL
ROAD
REGIS WAY
SILVERFIELD
LAUREL VALLEY LANE
Meadowgate
IVYBERRY WAY
IVYBERRY COURT
IVYBERRY PLACE
FAWN VISTA
CASTLE WAY
MACKLEN PLACE
LAUREL VALLEY PLACE
WAXMYRTLE WAY
CROPS
TREES
EARTH
AREA U/C
PKG
POND
4

HELMOND
500
530
513
515
515/
493
485
485
515
513
493
493
493
494
490
480
133.51 Ac.
CROPS



Elevations Table				
Number	Minimum Elevation	Maximum Elevation	Area	Color
1	400.00	410.00	247402.42	
2	410.00	420.00	486447.12	
3	420.00	430.00	806000.09	
4	430.00	440.00	1046633.48	
5	440.00	450.00	1070051.03	
6	450.00	460.00	1346130.88	
7	460.00	470.00	1620071.29	
8	470.00	480.00	1937452.52	
9	480.00	490.00	2629236.26	
10	490.00	500.00	2779213.40	
11	500.00	510.00	1776098.61	
12	510.00	520.00	1345542.69	
13	520.00	530.00	127393.94	
14	530.00	535.00	4045.02	

ARCHITECT:
TORTI GALLAS AND PARTNERS, INC.
1300 SPRING STREET, SUITE 400
SILVER SPRING, MARYLAND 20910
PHONE: 301-588-4800
FAX: 301-650-2255

CIVIL ENGINEER:
BHANOT ENGINEERS INC
20400 OBSERVATION DR, SUITE 208
GERMANTOWN, MARYLAND 20876
PHONE: 301-591-3833
FAX: 301-528-2051

CIVIL ENGINEER:
A MORTON THOMAS AND ASSOCIATES, INC.
12750 TWINBROOK PARKWAY
ROCKVILLE, MARYLAND 20852
PHONE: 301-881-2545
FAX: 301-881-2545

MECHANICAL/ELECTRICAL/PLUMBING ENGINEER:
NAME
ADDRESS
ADDRESS
ADDRESS
PHONE:
FAX:

USER AGENCY:
MONTGOMERY COUNTY PUBLIC SCHOOLS
MARYLAND NATIONAL CAPITAL PARK AND PLANNING
MONTGOMERY COUNTY DEPARTMENT OF POLICE
MONTGOMERY COUNTY FIRE RESCUE SERVICES

OWNER:
DEPARTMENT OF GENERAL SERVICES
OFFICE OF SPECIAL PROJECTS
101 MONROE STREET, 9TH FLOOR
ROCKVILLE, MD 20850

PROJECT # 470907

MONTGOMERY COUNTY MULTI AGENCY SERVICE PARK AT WEBB TRACT SITE MASTER PLAN

ADDRESS
ADDRESS

RFP/IFB # XXXXXXXXX

PROFESSIONAL CERTIFICATION
"I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND." LICENCE NO. 32161 EXPIRATION DATE 07-16-2011

SEAL

ISSUED FOR:
- [x] PRELIMINARY/PROGRESS (NOT FOR CONST.)
- [ ] OWNER REVIEW
- [ ] PRICING
- [ ] PERMIT
- [ ] CONSTRUCTION DOCUMENTS

REVISIONS

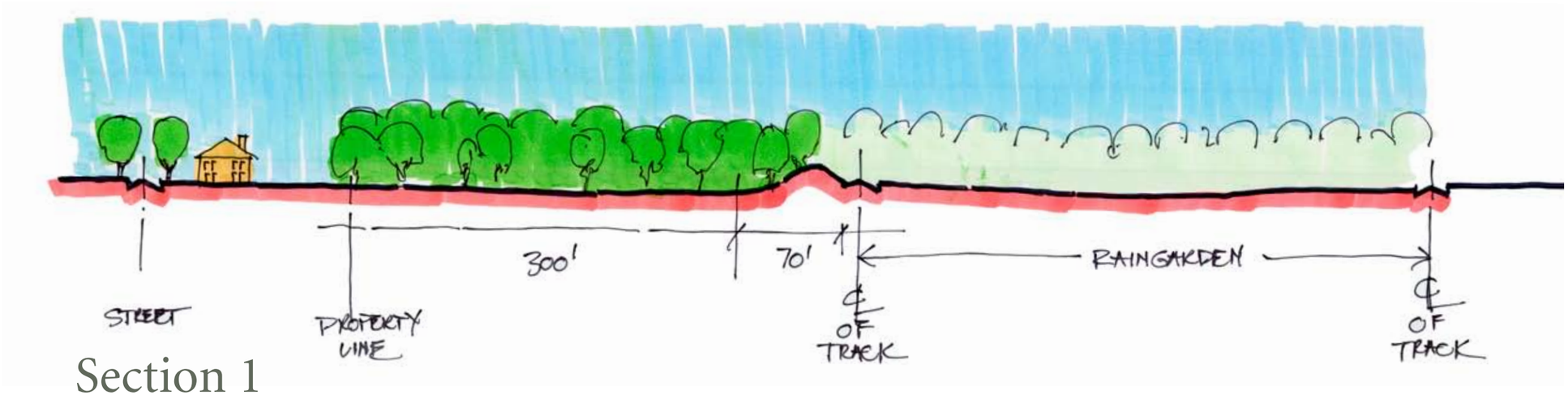
DESIGN	AMT
DRAWN	AMT
APPROVED	AMT
SCALE	
DATE	25 AUG 10
CAD FILE	
PROJECT NO.	110-081.001

DRAWING TITLE

NEIGHBORHOOD ELEVATIONS PLAN

DRAWING NO.

EXH-1



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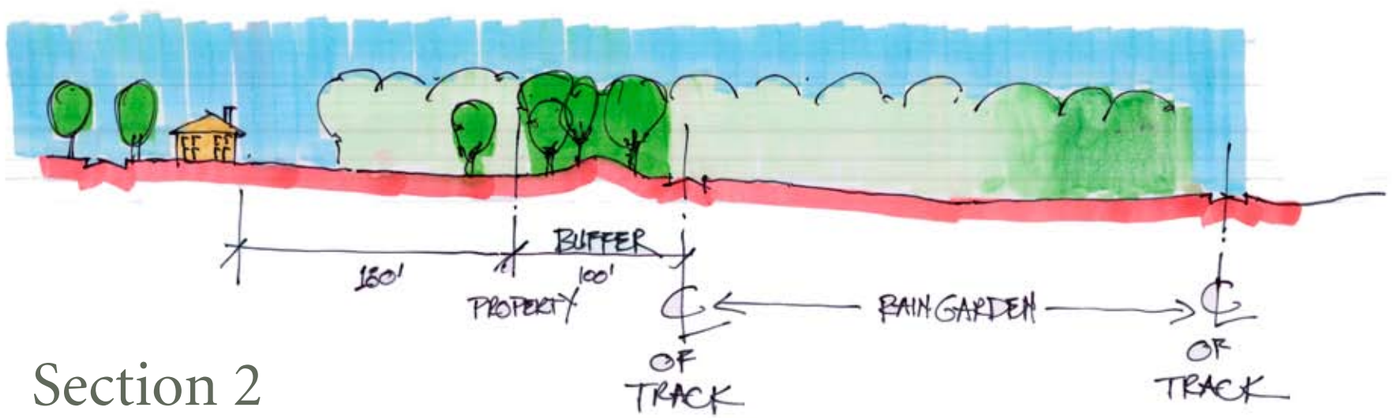

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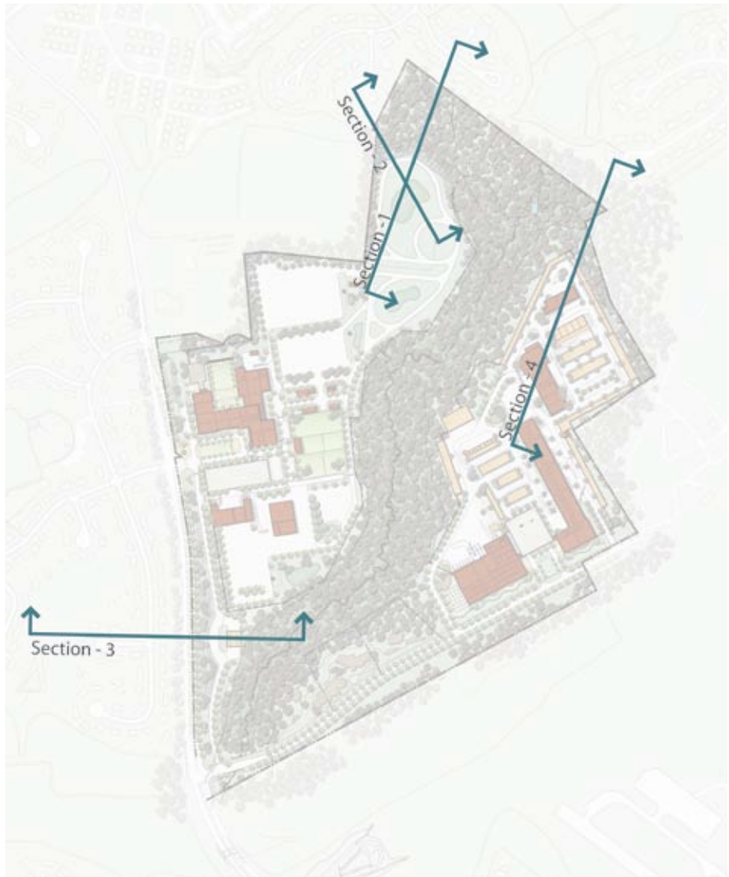

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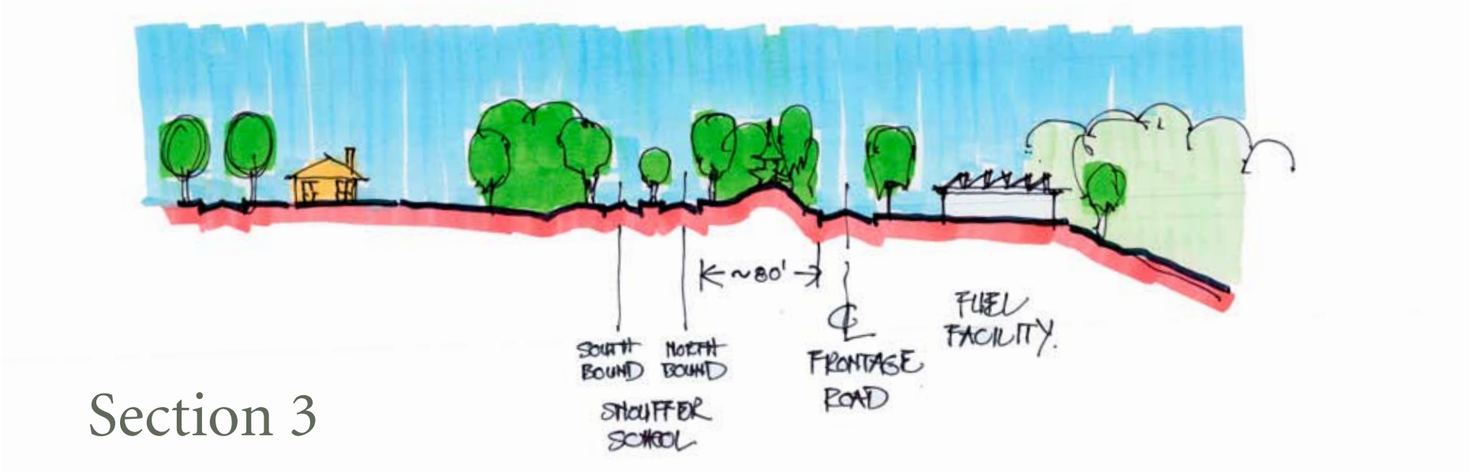
Site Sections



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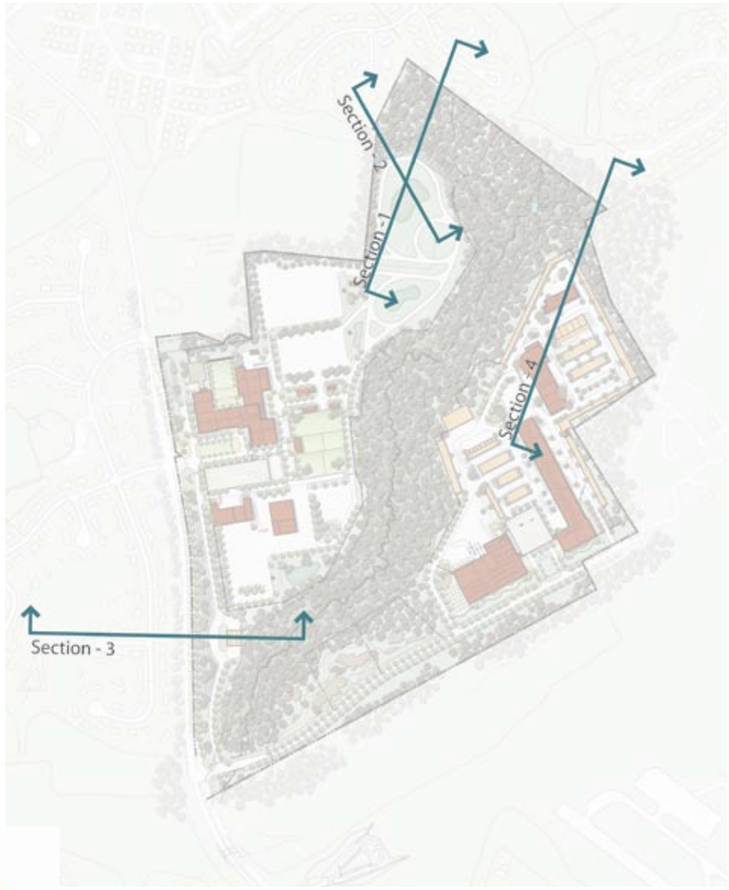

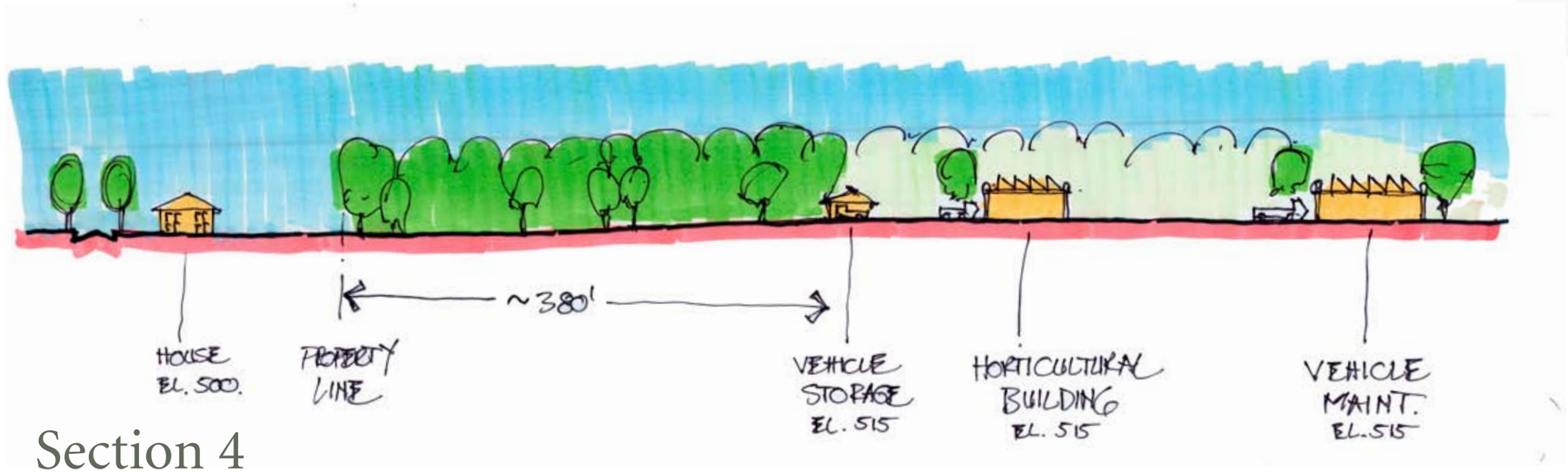

Section 4

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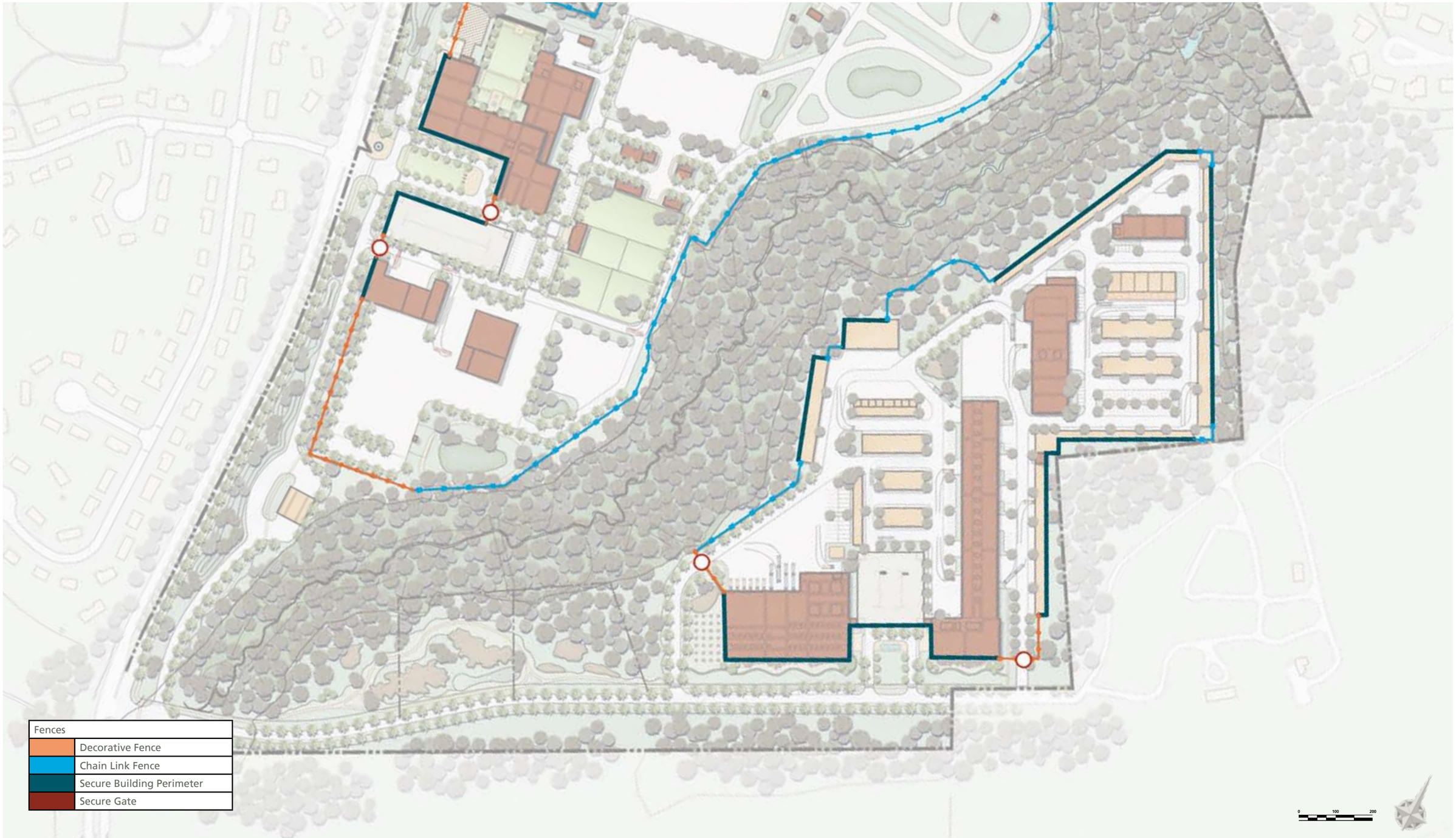
Site Sections



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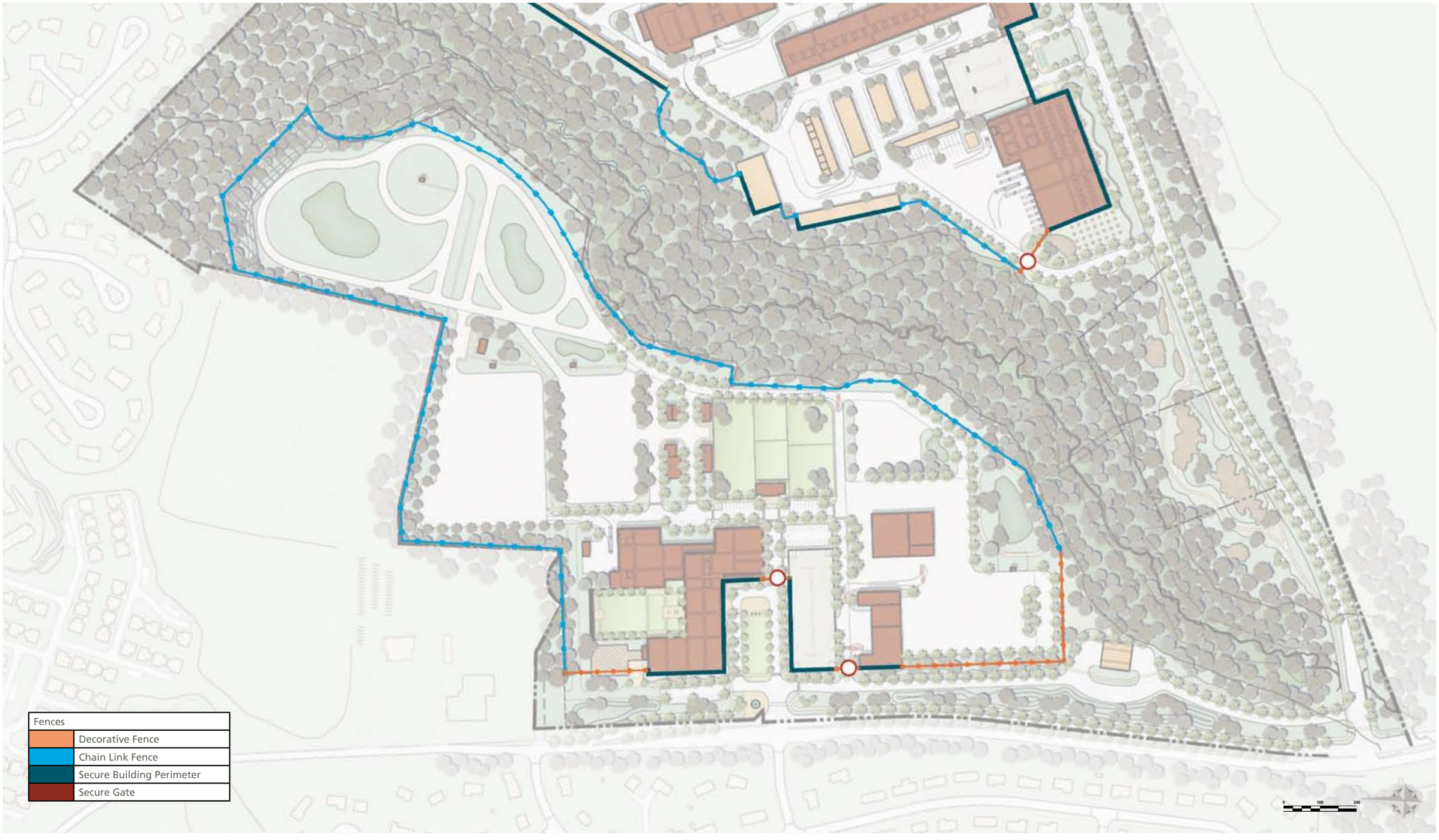
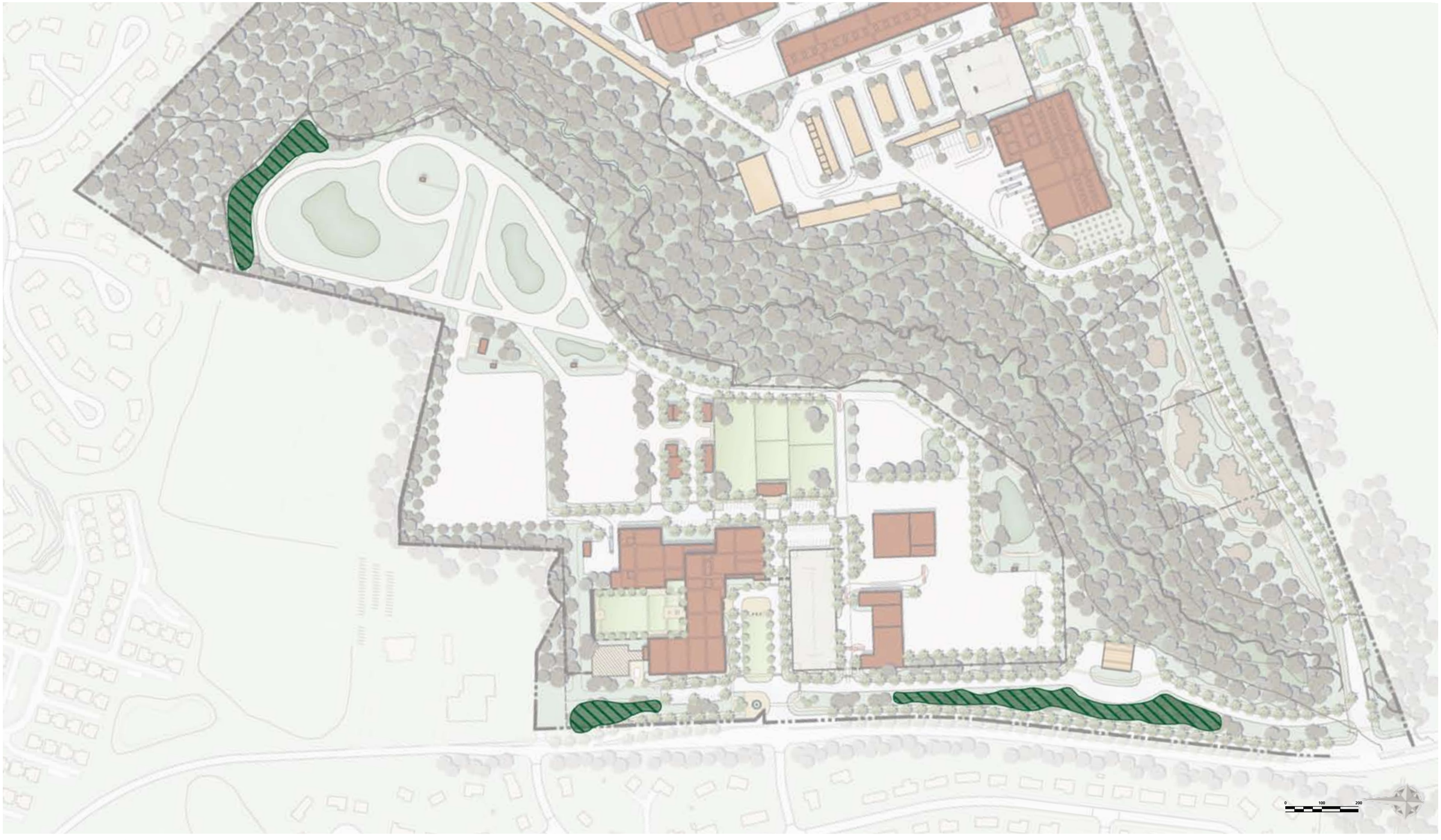
East Side Site Plan: Fence Diagram - Preliminary Design - Subject to Change



August 25, 2010

West Side Site Plan: Fence Diagram - Preliminary Design - Subject to Change



August 25, 2010

West Side Site Plan: Berm Diagram - Preliminary Design - Subject to Change

August 25, 2010

PSTA Entry Sqare

August 25, 2010

Noise Analysis Methodology

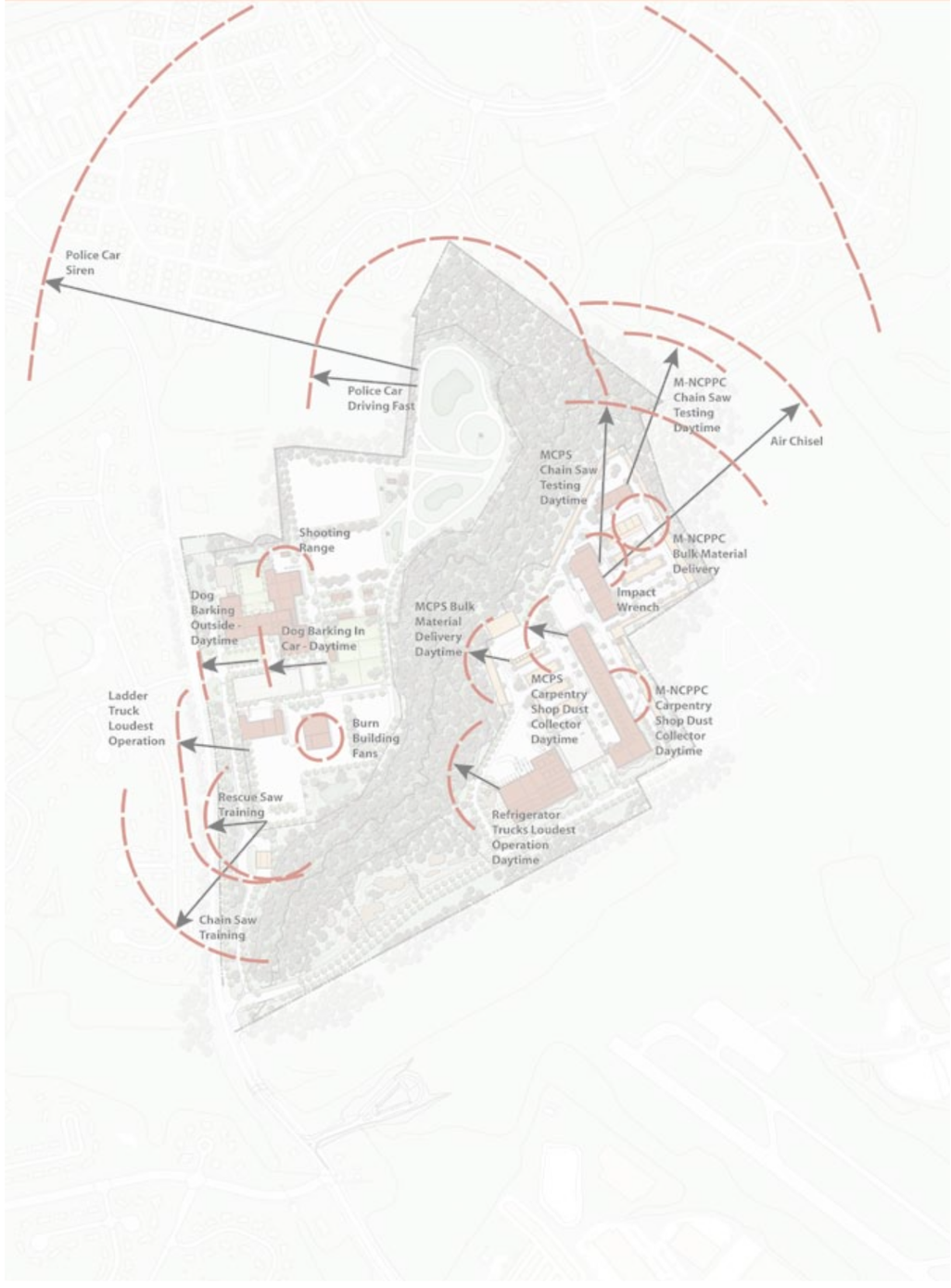
- Identify noise sources with users and design team
- Measure sound levels 50 feet from each noise source
- Extrapolate noise levels in community correcting for distance
- Compare noise levels to ordinance to see where mitigation needed
- Future analysis to develop noise mitigation measures:
  - Shielding by buildings, topography, berms, noise walls
  - Management of activities, times, locations of use

Sound Analysis by Hush Acoustics

August 25, 2010

Noise Ordinance Limits

- Daytime
  - 7 am to 9 pm weekdays, 9 am to 9 pmweekends/holidays
  - 65 dB at residential area
- Nighttime
  - 55 dB at residential area
- Tonal or impulsive – 5 points stricter
- Limits are maximums not averages
- Emergency operations exempt



Sound Analysis by Hush Acoustics

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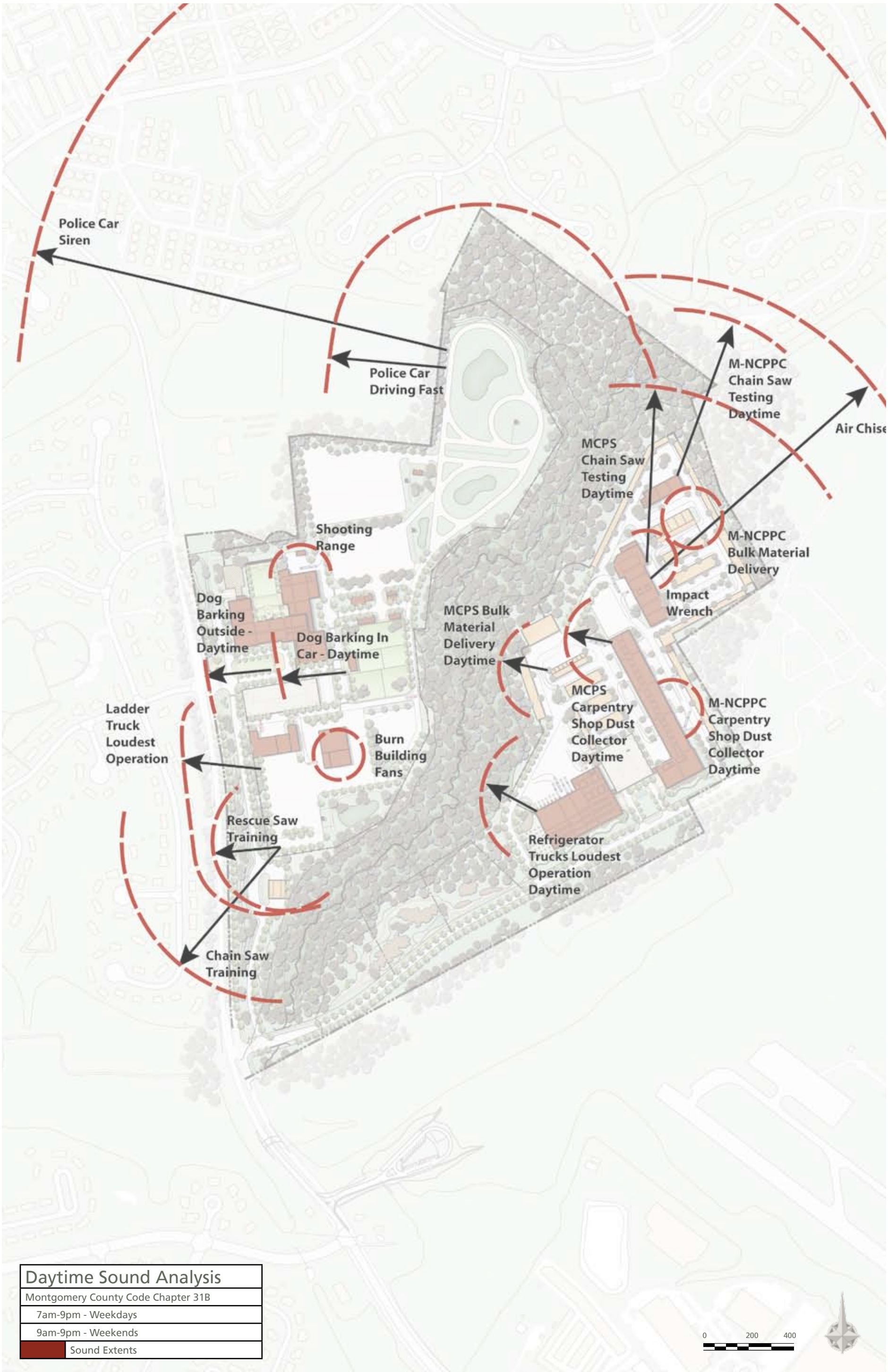
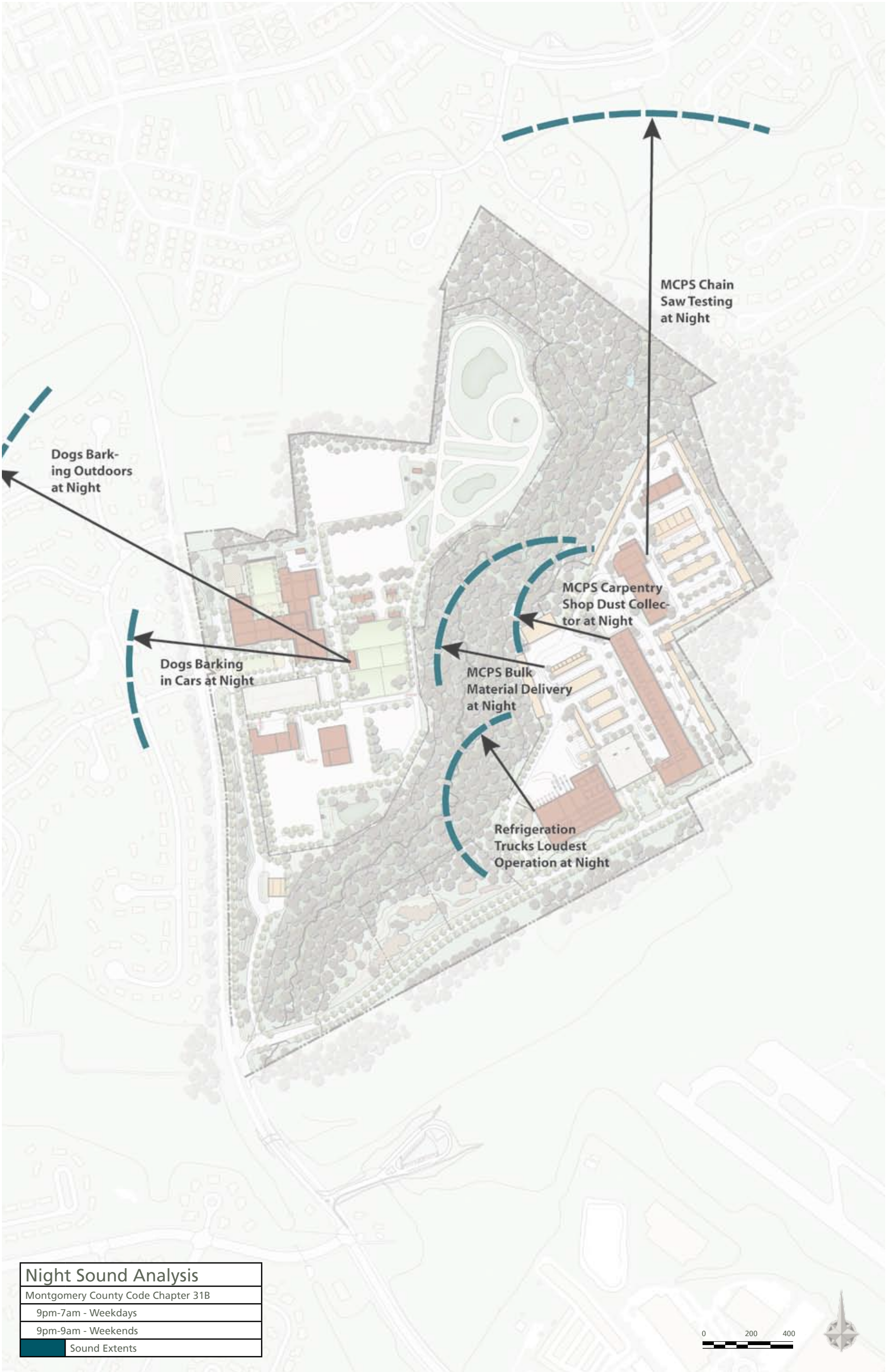


August 20, 2010

Overall Site Plan: Day Sound Analysis - Preliminary Design - Subject to Change



August 20, 2010

Overall Site Plan: Night Sound Analysis - Preliminary Design - Subject to Change

August 20, 2010

Overall Site Plan: Sound Mitigation Strategies - Preliminary Design - Subject to Change

Sound Mitigation	
	Sound Sources
	Sound Wall
	Berm
	Building

0 100 200

Sound Analysis by Hush Acoustics

August 25, 2010

East Side Site Plan: Sound Mitigation - Preliminary Design - Subject to Change

Sound Mitigation	
	Sound Sources
	Sound Wall
	Berm
	Building

Sound Analysis by Hush Acoustics

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West Side Site Plan: Sound Mitigation - Preliminary Design - Subject to Change

LEED® Credit Scorecard

LEED-2009 Green Building Rating System, version 3.0

PRELIMINARY SCORE CARD

Webb Tract

Client: Montgomery County

LEED — LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN

Possible Points **110**

Certified 40 to 49 points **Silver** 50 to 59 points **Gold** 60 to 79 points **Platinum** 80 or more points

Sustainable Sites — Possible Points 26

Y	?	N			
Y			Prereq 1	Construction Activity Pollution Prevention	P
1			Credit 1	Site Selection	1
	5		Credit 2	Development Density & Community Connectivity	5
		1	Credit 3	Brownfield Redevelopment	1
	6		Credit 4.1	Alt. Transportation: Public Transportation Access	6
1			Credit 4.2	Alt. Transportation: Bicycle Storage & Changing Rooms	1
3			Credit 4.3	Alt. Transportation: Low Emitting & Fuel Efficient Vehicles	3
2			Credit 4.4	Alt. Transportation: Parking Capacity	2
	1		Credit 5.1	Site Development: Protect or Restore Habitat	1
1			Credit 5.2	Site Development: Maximize Open Space	1
1			Credit 6.1	Stormwater Design: Quantity Control	1
1			Credit 6.2	Stormwater Design: Quality Control	1
1			Credit 7.1	Heat Island Effect: Non-Roof	1
1			Credit 7.2	Heat Island Effect: Roof	1
1			Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points 10

Y	?	N			
Y			Prereq 1	Water Use Reduction, 20% Reduction	P
2			Credit 1.1	Water Eff. Landscaping: Reduce by 50%	2
2			Credit 1.2	Water Eff. Landscaping: No Potable Use or No Irrigation	2
2			Credit 2	Innovative Wastewater Technologies	2
2			Credit 3.1	Water Use Reduction: 30% Reduction	2
	1		Credit 3.2	Water Use Reduction: 35% Reduction	1
	1		Credit 3.3	Water Use Reduction: 40% Reduction	1

Energy & Atmosphere — Possible Points 35

Y	?	N			
Y			Prereq 1	Fundamental Comm. of the Building Energy Systems	P
Y			Prereq 2	Minimum Energy Performance	P
Y			Prereq 3	CFC Reduction in HVAC&R Equipment	P
2			Credit 1	Opt. Energy Perf.: 12%, 14% New / 10% Existing	2
2			Credit 1	Opt. Energy Perf.: 16%, 18% New / 14% Existing	2
2			Credit 1	Opt. Energy Perf.: 20%, 22% New / 18% Existing	2
2			Credit 1	Opt. Energy Perf.: 24%,26% New / 22% Existing	2
2			Credit 1	Opt. Energy Perf.: 28%, 30% New / 26% Existing	2
	2		Credit 1	Opt. Energy Perf.: 32%, 34% New / 30% Existing	2
	2		Credit 1	Opt. Energy Perf.: 36%, 38% New / 34% Existing	2
	2		Credit 1	Opt. Energy Perf.: 40%, 42% New / 38% Existing	2
	3		Credit 1	Opt. Energy Perf.: 44%, 46%, 48% New / 44% Existing	3
1			Credit 2	On-Site Renewable Energy: 1%	1
1			Credit 2	On-Site Renewable Energy: 3%	1
	1		Credit 2	On-Site Renewable Energy: 5%	1
	1		Credit 2	On-Site Renewable Energy: 7%	1
	1		Credit 2	On-Site Renewable Energy: 9%	1
	1		Credit 2	On-Site Renewable Energy: 11%	1
	1		Credit 2	On-Site Renewable Energy: 13%	1
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
3			Credit 5	Measurement & Verification	3
2			Credit 6	Green Power	2

Materials & Resources — Possible Points 14

Y	?	N			
Y			Prereq 1	Storage & Collection of Recyclables	P
		1	Credit 1.1	Building Reuse: Maintain 55% of Existing Walls, Floors & Roof	1
		1	Credit 1.2	Building Reuse: Maintain 75% of Existing Walls, Floors & Roof	1
		1	Credit 1.3	Building Reuse: Maintain 95% of Existing Walls, Floors & Roof	1
		1	Credit 1.4	Building Reuse: Maintain 50% of Interior Non-Structural Elements	1
1			Credit 2.1	Construction Waste Management: Divert 50% from Disposal	1
1			Credit 2.2	Construction Waste Management: Divert 75% from Disposal	1
1			Credit 3.1	Materials Reuse: 5%	1
	1		Credit 3.2	Materials Reuse: 10%	1
1			Credit 4.1	Recycled Content: 10% (post-consumer + 1/2 pre-consumer)	1
1			Credit 4.2	Recycled Content: 20% (post-consumer + 1/2 pre-consumer)	1
1			Credit 5.1	Regional Materials: 10% Extracted, Processed & Manufactured Regionally	1
1			Credit 5.2	Regional Materials: 20% Extracted, Processed & Manufactured Regionally	1
1			Credit 6	Rapidly Renewable Materials	1
1			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points 15

Y	?	N			
Y			Prereq 1	Minimum IAQ Performance	P
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	P
1			Credit 1	Outdoor Air Delivery Monitoring	1
	1		Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan: During Construction	1
1			Credit 3.2	Construction IAQ Management Plan: Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials: Adhesives & Sealants	1
1			Credit 4.2	Low-Emitting Materials: Paints & Coatings	1
1			Credit 4.3	Low-Emitting Materials: Flooring Systems	1
1			Credit 4.4	Low-Emitting Materials: Composite Wood & Agrifiber Products	1
	1		Credit 5	Indoor Chemical & Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems: Lighting	1
1			Credit 6.2	Controllability of Systems: Thermal Comfort	1
1			Credit 7.1	Thermal Comfort: Design	1
1			Credit 7.2	Thermal Comfort: Verification	1
	1		Credit 8.1	Daylight & Views: Daylight 75% of Spaces	1
	1		Credit 8.2	Daylight & Views: Views for 90% of Spaces	1

Innovation & Design Process — Possible Points 6

Y	?	N				
1			Credit 1.1	Innovation in Design:	Reduced Footprint	1
	1		Credit 1.2	Innovation in Design:	Demonstration Farm?	1
	1		Credit 1.3	Innovation in Design:	Educational Displays?	1
	1		Credit 1.4	Innovation in Design:		1
	1		Credit 1.5	Innovation in Design:		1
1			Credit 2	LEED™ Accredited Professional		1

Regional Priority Credits — Possible Points 4

Y	?	N				
1			Credit 1.1	Regional Priority	SS c6.1	1
1			Credit 1.2	Regional Priority	WE c2	1
1			Credit 1.3	Regional Priority	EA c2 (1%)	1
1			Credit 1.4	Regional Priority	MR c2.1	1

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3			Credit 4.3	Alt. Transportation: Low Emitting & Fuel Efficient Vehicles	3
2			Credit 4.4	Alt. Transportation: Parking Capacity	2
	1		Credit 5.1	**Site Development: Protect or Restore Habitat**	**1**
1			Credit 5.2	Site Development: Maximize Open Space	1
1			Credit 6.1	Stormwater Design: Quantity Control	1
1			Credit 6.2	Stormwater Design: Quality Control	1

Intent

To conserve exisiting natural Areas and restore damaged areas to provide habitat and promote biodiversity

Requirement

Restore or protect a minimum of 50% of the site (excluding building footprint) or 20% of the total site area (including building footprint), whichever is greater, with native or adapted vegetation.

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Sustainable Sites — Possible Points 26

Y	?	N			
Y			Prereq 1	Construction Activity Pollution Prevention	P
1			Credit 1	Site Selection	1
	5		Credit 2	Development Density & Community Connectivity	5
		1	Credit 3	Brownfield Redevelopment	1
	6		Credit 4.1	Alt. Transportation: Public Transportation Access	6
1			Credit 4.2	Alt. Transportation: Bicycle Storage & Changing Rooms	1
3			Credit 4.3	Alt. Transportation: Low Emitting & Fuel Efficient Vehicles	3
2			Credit 4.4	Alt. Transportation: Parking Capacity	2
	1		Credit 5.1	Site Development: Protect or Restore Habitat	1
1			Credit 5.2	Site Development: Maximize Open Space	1
1			Credit 6.1	Stormwater Design: Quantity Control	1
1			Credit 6.2	Stormwater Design: Quality Control	1
1			Credit 7.1	Heat Island Effect: Non-Roof	1
1			Credit 7.2	Heat Island Effect: Roof	1
1			Credit 8	Light Pollution Reduction	1

1			Credit 5.2	Site Development: Maximize Open Space	1
1			Credit 6.1	Stormwater Design: Quantity Control	1
1			Credit 6.2	**Stormwater Design: Quality Control**	**1**
1			Credit 7.1	Heat Island Effect: Non-Roof	1
1			Credit 7.2	Heat Island Effect: Roof	1
1			Credit 8	Light Pollution Reduction	1

Intent

To limit disruption and pollution of natural water flows by managing stormwater runoff

Requirement

Impliment a stormwater management plan that reduces impervious cover, promotes infiltration and captures and treats the stormwater runoff from 90% of the aerage annual rainfall using acceptable best management practices.

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1			Credit 6.2	Stormwater Design: Quality Control	1
1			Credit 7.1	Heat Island Effect: Non-Roof	1
1			Credit 7.2	**Heat Island Effect: Roof**	**1**
1			Credit 8	Light Pollution Reduction	1

			Water Efficiency Possible Points **10**

Intent

To reduce heat islands to minimize impacts on microclimates and human and wildlife habitats.

Requirement

Use roofing materials with a high solar reflectance index for a minimum of 75% of the roof surface

OR

Install a vegetated roof that covers at least 50% of the roof area.

OR

The appropriate combination of both.

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Water Efficiency — Possible Points 10

Y	?	N			
Y			Prereq 1	Water Use Reduction, 20% Reduction	P
2			Credit 1.1	Water Eff. Landscaping: Reduce by 50%	2
2			Credit 1.2	Water Eff. Landscaping: No Potable Use or No Irrigation	2
2			Credit 2	Innovative Wastewater Technologies	2
2			Credit 3.1	Water Use Reduction: 30% Reduction	2
	1		Credit 3.2	Water Use Reduction: 35% Reduction	1
	1		Credit 3.3	Water Use Reduction: 40% Reduction	1

Y			Prereq 1	**Water Use Reduction, 20% Reduction**	P
2			Credit 1.1	**Water Eff. Landscaping: Reduce by 50%**	2
2			Credit 1.2	**Water Eff. Landscaping: No Potable Use or No Irrigation**	2
2			Credit 2	**Innovative Wastewater Technologies**	2
2			Credit 3.1	**Water Use Reduction: 30% Reduction**	2
	1		Credit 3.2	**Water Use Reduction: 35% Reduction**	1

Intent

To limit or eliminate the use of potable water or other natural surface or subsurface water resources available on or near the project site for landscape irrigation.

Requirement

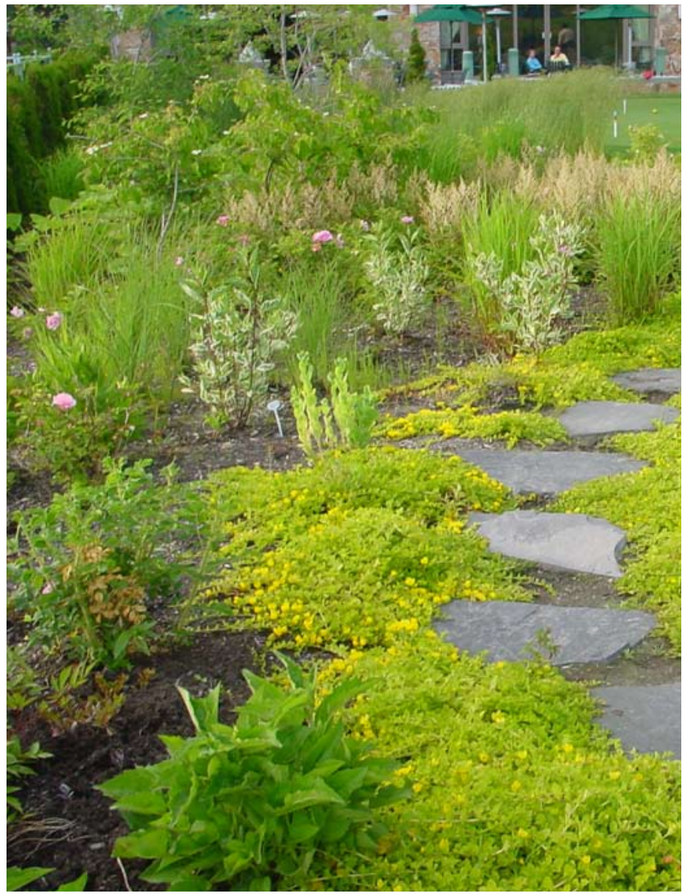
Reduce potable water consumption for irrigation by 50% from a calculated midsummer baseline grid

AND

Use only captured rainwater., recycled wastewater, recycled graywater or water treated and conveyed by a public agency specifically for nonpotable uses for irrigation.

OR

Install Landscaping that does not require permanent irrigation systems.



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Energy & Atmosphere — Possible Points 35

Y	?	N			
Y			Prereq 1	**Fundamental Comm. of the Building Energy Systems**	**P**
Y			Prereq 2	**Minimum Energy Performance**	**P**
Y			Prereq 3	**CFC Reduction in HVAC&R Equipment**	**P**
2			Credit 1	**Opt. Energy Perf.: 12%, 14% New /** 10% Existing	**2**
2			Credit 1	**Opt. Energy Perf.: 16%, 18% New /** 14% Existing	**2**
2			Credit 1	**Opt. Energy Perf.: 20%, 22% New /** 18% Existing	**2**
2			Credit 1	**Opt. Energy Perf.: 24%,26% New /** 22% Existing	**2**
2			Credit 1	**Opt. Energy Perf.: 28%, 30% New /** 26% Existing	**2**
	2		Credit 1	**Opt. Energy Perf.: 32%, 34% New /** 30% Existing	**2**
	2		Credit 1	**Opt. Energy Perf.: 36%, 38% New /** 34% Existing	**2**
	2		Credit 1	**Opt. Energy Perf.: 40%, 42% New /** 38% Existing	**2**
	3		Credit 1	**Opt. Energy Perf.: 44%, 46%, 48% New /** 44% Existing	**3**
1			Credit 2	**On-Site Renewable Energy: 1%**	**1**
1			Credit 2	**On-Site Renewable Energy: 3%**	**1**
	1		Credit 2	**On-Site Renewable Energy: 5%**	**1**
	1		Credit 2	**On-Site Renewable Energy: 7%**	**1**
	1		Credit 2	**On-Site Renewable Energy: 9%**	**1**
	1		Credit 2	**On-Site Renewable Energy: 11%**	**1**
	1		Credit 2	**On-Site Renewable Energy: 13%**	**1**
2			Credit 3	**Enhanced Commissioning**	**2**
2			Credit 4	**Enhanced Refrigerant Management**	**2**
3			Credit 5	**Measurement & Verification**	**3**
2			Credit 6	**Green Power**	**2**

2			Credit 1	**Opt. Energy Perf.: 12%, 14% New /** 10% Existing	**2**
2			Credit 1	**Opt. Energy Perf.: 16%, 18% New /** 14% Existing	**2**
2			Credit 1	**Opt. Energy Perf.: 20%, 22% New /** 18% Existing	**2**
2			Credit 1	**Opt. Energy Perf.: 24%,26% New /** 22% Existing	**2**
2			Credit 1	**Opt. Energy Perf.: 28%, 30% New /** 26% Existing	**2**
	2		Credit 1	**Opt. Energy Perf.: 32%, 34% New /** 30% Existing	**2**

Intent

To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use.

Requirement

Whole Building Energy Simulation
Demonstrate a percentage improvement in the proposed builidng performance rating compared with the baseline building performance rating.

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Materials & Resources — Possible Points 14

Y	?	N			
Y			Prereq 1	**Storage & Collection of Recyclables**	P
		1	Credit 1.1	**Building Reuse: Maintain 55% of Existing Walls, Floors & Roof**	1
		1	Credit 1.2	**Building Reuse: Maintain 75% of Existing Walls, Floors & Roof**	1
		1	Credit 1.3	**Building Reuse: Maintain 95% of Existing Walls, Floors & Roof**	1
		1	Credit 1.4	**Building Reuse: Maintain 50% of Interior Non-Structural Elements**	1
1			Credit 2.1	**Construction Waste Management: Divert 50% from Disposal**	1
1			Credit 2.2	**Construction Waste Management: Divert 75% from Disposal**	1
1			Credit 3.1	**Materials Reuse: 5%**	1
	1		Credit 3.2	**Materials Reuse: 10%**	1
1			Credit 4.1	**Recycled Content: 10% (post-consumer + 1/2 pre-consumer)**	1
1			Credit 4.2	**Recycled Content: 20% (post-consumer + 1/2 pre-consumer)**	1
1			Credit 5.1	**Regional Materials: 10% Extracted, Processed & Manufactured Regionally**	1
1			Credit 5.2	**Regional Materials: 20% Extracted, Processed & Manufactured Regionally**	1
1			Credit 6	**Rapidly Renewable Materials**	1
1			Credit 7	**Certified Wood**	1

Indoor Environmental Quality — Possible Points 15

Y	?	N			
Y			Prereq 1	**Minimum IAQ Performance**	**P**
Y			Prereq 2	**Environmental Tobacco Smoke (ETS) Control**	**P**
1			Credit 1	**Outdoor Air Delivery Monitoring**	**1**
	1		Credit 2	**Increased Ventilation**	**1**
1			Credit 3.1	**Construction IAQ Management Plan: During Construction**	**1**
1			Credit 3.2	**Construction IAQ Management Plan: Before Occupancy**	**1**
1			Credit 4.1	**Low-Emitting Materials: Adhesives & Sealants**	**1**
1			Credit 4.2	**Low-Emitting Materials: Paints & Coatings**	**1**
1			Credit 4.3	**Low-Emitting Materials: Flooring Systems**	**1**
1			Credit 4.4	**Low-Emitting Materials: Composite Wood & Agrifiber Products**	**1**
	1		Credit 5	**Indoor Chemical & Pollutant Source Control**	**1**
1			Credit 6.1	**Controllability of Systems: Lighting**	**1**
1			Credit 6.2	**Controllability of Systems: Thermal Comfort**	**1**
1			Credit 7.1	**Thermal Comfort: Design**	**1**
1			Credit 7.2	**Thermal Comfort: Verification**	**1**
	1		Credit 8.1	**Daylight & Views: Daylight 75% of Spaces**	**1**
	1		Credit 8.2	**Daylight & Views: Views for 90% of Spaces**	**1**

Innovation & Design Process — Possible Points 6

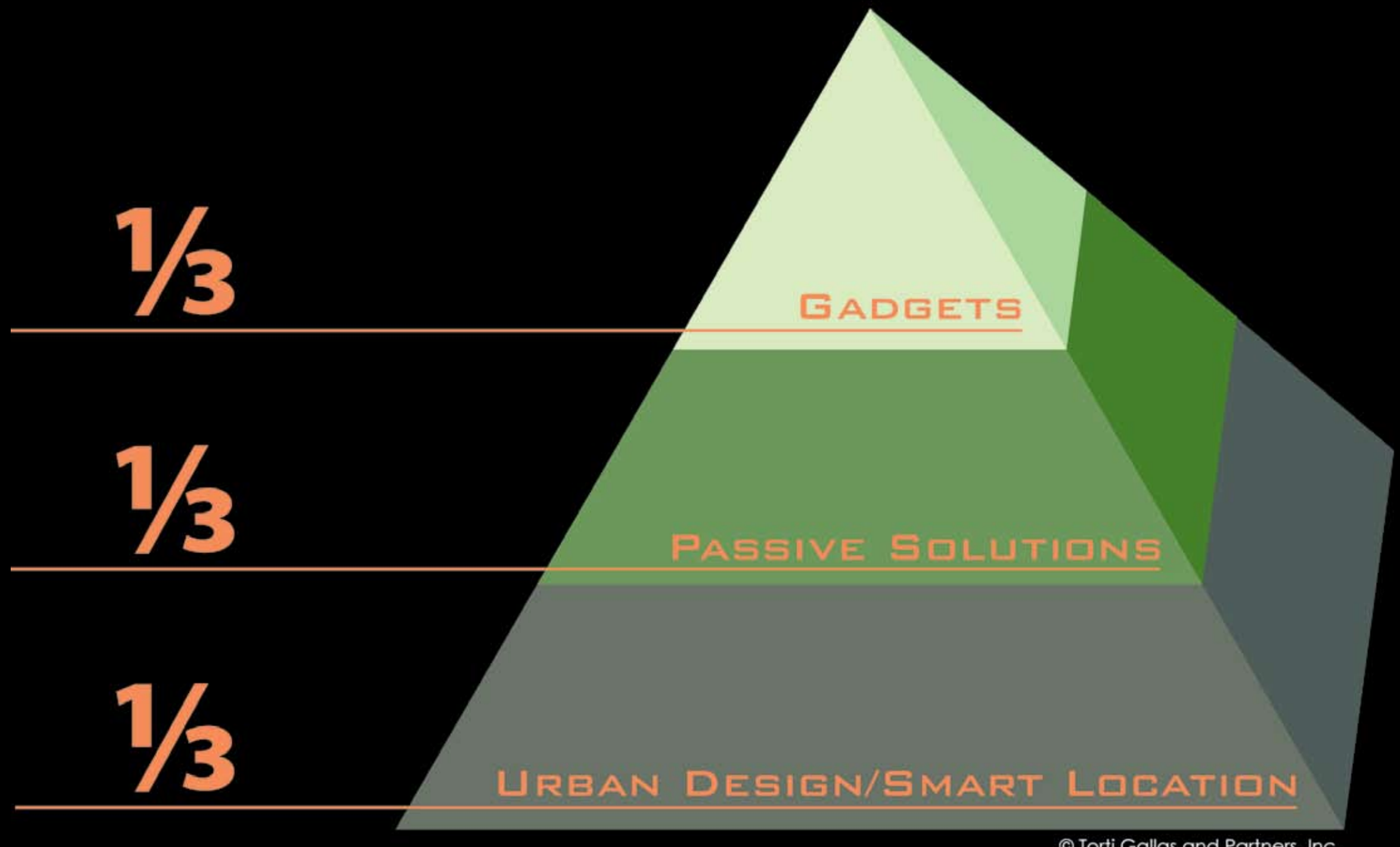
Y	?	N				
1			Credit 1.1	Innovation in Design:	Reduced Footprint	1
	1		Credit 1.2	Innovation in Design:	Demonstration Farm?	1
	1		Credit 1.3	Innovation in Design:	Educational Displays?	1
	1		Credit 1.4	Innovation in Design:		1
	1		Credit 1.5	Innovation in Design:		1
1			Credit 2	LEED™ Accredited Professional		1

Regional Priority Credits — Possible Points 4

Y	?	N				
1			Credit 1.1	Regional Priority	SS c6.1	1
1			Credit 1.2	Regional Priority	WE c2	1
1			Credit 1.3	Regional Priority	EA c2 (1%)	1
1			Credit 1.4	Regional Priority	MR c2.1	1

Sustainability Pyramid

Achieving Sustainability & a "Zero Carbon Footprint"



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